

## **In the Abstract**

### **Purpose**

A biomass gasification system and operating method thereof are able to prevent hindrances caused by the tar component in a fuel gas and to thermally utilize a fuel gas containing a tar component. Means A gas reforming tower[[ 4]], able to thermally crack the tar component in a fuel gas by increasing the temperature thereof to a process temperature, is connected to a gas supply system[[ 3]], which routes a biomass-source fuel gas generated by a gasification furnace[[ 1]], to a utilization system[[ 2]]. Fuel gas from the gas reforming tower is routed through a fuel gas induction system [[5 ]]to the gasification furnace for use as fuel therein during the time required for the gas reforming tower to attain the process temperature.